Amendment to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1. (Previously presented): A light stable hydrophobic polyurethane elastomer comprising the reaction product of:

A) an isocyanate terminated prepolymer having an isocyanate content ranging from 4 to 12 wt.% NCO comprising the reaction product of:

i) an OH terminated homopolymer of butadiene having a molecular weight ranging from 1000 to 4000 and an OH functionality of from 1.9 to 2.1, prepared in the presence of bis(tricyclohexylphosphine) benzylidene-ruthenium dichloride catalyst; and

ii) at least one aliphatic or cycloaliphatic diisocyanate; and

B) at least one symmetric diol or diamine chain extender having a molecular weight ranging from 62 to 400.

Claim 2. (Original): The elastomer according to Claim 1 wherein said homopolymer of butadiene is dihydroxyl terminated polybutadiene.

Claim 3. (Previously presented): The elastomer according to Claim 1, wherein the OH terminated homopolymer of butadiene is represented by the formula:

$$HO\{CH_2\text{-}CH{=}CH(CH_2)_2\text{-}CH{=}CH\text{-}CH_2\}_nCH_2\text{-}CH{=}CH\text{-}CH_2OH,$$

wherein n is a number average value from about 8 to 36.

Claim 4. (Previously presented): The elastomer according to Claim 1, wherein said at least one aliphatic or cycloaliphatic diisocyanate is selected from the group consisting of 1,4-tetramethylene diisocyanate, 1,6-hexamethylene diisocyanate, 2,2,4-trimethyl-1,6-hexamethylene diisocyanate, 1,12-dodecamethylene

diisocyanate, cyclohexane-1,3- and -1,4-diisocyanate, 1-isocyanato-2-isocyanatomethyl cyclopentane, 1-iso-cyanato-3-isocyanatomethyl-3,5,5-trimethyl-cyclohexane (isophorone diisocyanate or IPDI), bis-(4-isocyanatocyclohexyl)-methane, 2,4'-dicyclohexylmethane diisocyanate, 1,3- and 1,4-bis-(isocyanatomethyl)-cyclohexane, bis-(4-isocyanato-3-methyl-cyclohexyl)-methane, $\alpha,\alpha,\alpha',\alpha'$-tetramethyl-1,3- and/or -1,4-xylylene diisocyanate, 1-isocyanato-1-methyl-4(3)-isocyanatomethyl cyclohexane, 2,4- and/or 2,6-hexa-hydrotoluylene diisocyanate and 4,4'-dicyclohexyl-methanediisocyanate (rMDI).

Claim 5. (Previously presented): The elastomer according to Claim 4, wherein said at least one aliphatic or cycloaliphatic diisocyanate is 1-isocyanato-3-isocyanatomethyl-3,5,5-trimethyl-cyclohexane.

Claim 6. (Previously presented): The elastomer according to Claim 4, wherein said at least one aliphatic or cycloaliphatic diisocyanate is 4,4'-dicyclohexylmethane-diisocyanate.

Claim 7. (Original): The elastomer according to Claim 6, wherein said 4,4' -dicyclohexyl-methanediisocyanate contains about 23% by weight *trans,trans*, 49% by weight *cis,trans*, and 28% by weight *cis,cis* isomer.

Claim 8. (Currently amended): The elastomer according to Claim 1, wherein said at least one symmetric diol or diamine chain extender is selected from the group consisting of 1,6-hexane-diol, 1,8-octanediol, 2-methyl-1,3-propanediol, ethylene glycol, diethylene glycol, dipropylene glycol, 1,4-butanediol, terephthalic acid bis(ethylene glycol), terephthalic acid bis(1,4-butanediol), 1,4-di(hydroxyethyl) hydroquinone, ~~symmetric ethoxylated bisphenols,~~ ethylenediamine, 1,3-propylenediamine, N-methylpropylene-1,3-diamine, N,N'-dimethyl ethylenediamine, 2,6-tolylenediamine~~,~~ and 3,5-diethyl-2,6-tolylenediamine ~~and primary symmetric mono-, di-, tri- or tetraalykyl substituted 4,4'-diaminodiphenylmethanes~~.

Claim 9. (Previously presented): The elastomer according to Claim 8, wherein said at least one symmetric diol or diamine chain extender comprises 1,4-butanediol.

Claim 10. (Previously presented): The elastomer according to Claim 1, wherein the OH terminated homopolymer of butadiene has an OH functionality ranging from 1.95 to 2.0.

Claim 11. (Previously presented): The elastomer according to Claim 1, wherein said isocyanate terminated prepolymer and said at least one symmetric diol or diamine chain extender are combined at an NCO/OH index of between 50 and 150.

Claim 12. (Previously presented): A light stable hydrophobic polyurethane elastomer comprising the reaction product of:

A) an isocyanate terminated prepolymer having an isocyanate content ranging from 4 to 12 wt.% NCO comprising the reaction product of

i) an OH terminated homopolymer of butadiene having a molecular weight ranging from 1000 to 4000 and an OH functionality of from 1.9 to 2.1, prepared in the presence of bis(tricyclohexylphosphine) benzylidene-ruthenium dichloride catalyst, and

ii) at least one aliphatic or cycloaliphatic diisocyanate; and

B) 1,4-butanediol.

Claim 13. (Previously presented): A process for preparing a light stable hydrophobic polyurethane elastomer comprising:

A) forming a polyurethane reactive mixture by reacting

i) an isocyanate terminated prepolymer having an isocyanate content ranging from 4 to 12 wt.% NCO comprising the reaction product of:

a) an OH terminated homopolymer of butadiene having a molecular weight ranging from 1000 to 4000 and an OH

functionality of from 1.9 to 2.1, prepared in the presence of bis(tricyclohexylphosphine) benzylidene-ruthenium dichloride catalyst, and

b) at least one aliphatic or cycloaliphatic diisocyanate;

with

ii) at least one symmetric diol or diamine chain extender having a molecular weight ranging from 62 to 400;

and

B) curing the reactive mixture in a mold.

Claim 14. (Previously presented): A process for preparing a light stable hydrophobic polyurethane elastomer comprising:

A) forming a polyurethane reactive mixture by reacting:

i) an isocyanate terminated prepolymer having an isocyanate content ranging from 4 to 12 wt.% NCO comprising the reaction product of

a) an OH terminated homopolymer of butadiene having a molecular weight ranging from 1000 to 4000 and an OH functionality of from 1.9 to 2.1, prepared in the presence of bis(tricyclohexylphosphine) benzylidene-ruthenium dichloride catalyst, and

b) at least one aliphatic or cycloaliphatic diisocyanate;

with

ii) 1,4-butanediol;

and

B) curing the reactive mixture in a mold.

Claim 15. (New): A light stable hydrophobic polyurethane elastomer comprising the reaction product of:

A) an isocyanate terminated prepolymer having an isocyanate content ranging from 4 to 12 wt.% NCO comprising the reaction product of:

i) an OH terminated homopolymer of butadiene having a molecular weight ranging from 1000 to 4000 and an OH functionality of from 1.9 to 2.1, prepared in the presence of bis(tricyclohexylphosphine) benzylidene-ruthenium dichloride catalyst; and

ii) at least one aliphatic or cycloaliphatic diisocyanate; and

B) at least one chain extender chosen from 1,6-hexane-diol, 1,8-octanediol, 2-methyl-1,3-propanediol, ethylene glycol, diethylene glycol, dipropylene glycol, 1,4-butanediol, terephthalic acid bis(ethylene glycol), terephthalic acid bis(1,4-butanediol), 1,4-di(hydroxyethyl) hydroquinone, ethylenediamine, 1,3-propylenediamine, N-methylpropylene-1,3-diamine, N,N'-dimethyl ethylenediamine, 2,6-tolylenediamine and 3,5-diethyl-2,6-tolylenediamine.

Claim 16. (New): The elastomer according to Claim 15, wherein said homopolymer of butadiene is dihydroxyl terminated polybutadiene.

Claim 17. (New): The elastomer according to Claim 15, wherein the OH terminated homopolymer of butadiene is represented by the formula:

$$HO\left[CH_2\text{-}CH{=}CH(CH_2)_2\text{-}CH{=}CH\text{-}CH_2\right]_n CH_2\text{-}CH{=}CH\text{-}CH_2OH,$$

wherein n is a number average value from about 8 to 36.

Claim 18. (New): The elastomer according to Claim 15, wherein said at least one aliphatic or cycloaliphatic diisocyanate is chosen from 1,4-tetramethylene diisocyanate, 1,6-hexamethylene diisocyanate, 2,2,4-trimethyl-1,6-hexamethylene diisocyanate, 1,12-dodecamethylene diisocyanate, cyclohexane-1,3- and -1,4-diisocyanate, 1-isocyanato-2-isocyanatomethyl cyclopentane, 1-iso-cyanato-3-isocyanatomethyl-3,5,5-trimethyl-cyclohexane (isophorone diisocyanate or IPDI), bis-(4-isocyanatocyclohexyl)-methane, 2,4'-dicyclohexylmethane diisocyanate, 1,3-

and 1,4-bis-(isocyanatomethyl)-cyclohexane, bis-(4-isocyanato-3-methyl-cyclohexyl)-methane, α,α,α',α'-tetramethyl-1,3- and/or -1,4-xylylene diisocyanate, 1-isocyanato-1-methyl-4(3)-isocyanatomethyl cyclohexane, 2,4- and/or 2,6-hexa-hydrotoluylene diisocyanate and 4,4'-dicyclohexyl-methanediisocyanate (rMDI).

Claim 19. (New): The elastomer according to Claim 15, wherein said at least one aliphatic or cycloaliphatic diisocyanate is 1-isocyanato-3-isocyanatomethyl-3,5,5-trimethyl-cyclohexane.

Claim 20. (New): The elastomer according to Claim 15, wherein said at least one aliphatic or cycloaliphatic diisocyanate is 4,4'-dicyclohexylmethane-diisocyanate.

Claim 21. (New): The elastomer according to Claim 20, wherein said 4,4' -dicyclohexyl-methanediisocyanate contains about 23% by weight *trans,trans*, 49% by weight *cis,trans*, and 28% by weight *cis,cis* isomer.

Claim 22. (New): A process for preparing a light stable hydrophobic polyurethane elastomer comprising:

A) forming a polyurethane reactive mixture by reacting

i) an isocyanate terminated prepolymer having an isocyanate content ranging from 4 to 12 wt.% NCO comprising the reaction product of:

a) an OH terminated homopolymer of butadiene having a molecular weight ranging from 1000 to 4000 and an OH functionality of from 1.9 to 2.1, prepared in the presence of bis(tricyclohexylphosphine) benzylidene-ruthenium dichloride catalyst, and

b) at least one aliphatic or cycloaliphatic diisocyanate;

with

ii) at least one chain extender chosen from 1,6-hexane-diol, 1,8-octanediol, 2-methyl-1,3-propanediol, ethylene glycol, diethylene

glycol, dipropylene glycol, 1,4-butanediol, terephthalic acid bis(ethylene glycol), terephthalic acid bis(1,4-butanediol), 1,4-di(hydroxyethyl) hydroquinone, ethylenediamine, 1,3-propylenediamine, N-methylpropylene-1,3-diamine, N,N'-dimethyl ethylenediamine, 2,6-tolylenediamine and 3,5-diethyl-2,6-tolylenediamine;

and

B) curing the reactive mixture in a mold.

REMARKS

In the Office Action mailed May 20, 2003, Claims 1-14 are rejected under 35 U.S.C. §102(e), as being anticipated by U.S. Pat. No. 6,166,166 issued to Taylor et al. Claims 1-11 and 13 are rejected under 35 U.S.C. §112, first paragraph for containing subject matter which was not described in such a way as to reasonably convey that Applicants were in possession of the claimed invention at the time of filing of the instant application. Claim 8 is rejected under 35 U.S.C. §112, first paragraph for containing subject matter which was not described in such a way as to enable one skilled in the art to make and/or use the invention. Claim 9 is rejected under 35 U.S.C. §112, second paragraph as being indefinite. The Examiner made those rejections FINAL.

In the Advisory Action, mailed August 6, 2003, the Examiner indicated that the response filed under 37 C.F.R. §1.116 would be entered and that it overcame the rejection of Claim 9 under 35 U.S.C. §112, second paragraph. In that same Advisory Action, the Examiner maintained his rejections of Claims 1-14 under 35 U.S.C. §102(e) and Claims 1-11 and 13 under 35 U.S.C. §112, first paragraph. Applicants filed a Notice of Appeal on August 20, 2003. Applicants respectfully request that the Office withdraw the finality of the Notice of Appeal mailed August 20, 2003 to permit entry and consideration of the instant amendment.

Rejections under 35 U.S.C. §112, first paragraph

Claims 1-11 and 13 are rejected under 35 U.S.C. §112, first paragraph for containing subject matter which was not described in such a way as to reasonably convey that Applicants were in possession of the claimed invention at the time of filing of the instant application. The Examiner contends that the Applicants have failed to provide support for using diols and diamines that are exclusively symmetric, other than those exemplified and that no support was provided for symmetric

ethoxylated bisphenols and primary symmetric mono-, di-, tri-, or tetraalkyl-substituted 4,4'-diaminodiphenylmethanes. Applicants have removed symmetric ethoxylated bisphenols and primary symmetric mono-, di-, tri-, or tetraalkyl-substituted 4,4'-diaminodiphenylmethanes from the instant claims.

As to the alleged lack of support for, "...the concept of using diols and diamines that are exclusively symmetric...." (page 2, paragraph 1 of the Final Office Action, mailed May 20, 2003), Applicants submit that they have satisfied the test of enablement given in MPEP §2164.01. (*United States v. Telectronics, Inc.,* 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988), "The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation.") Applicants note that symmetric diols and diamines are disclosed in the instant specification at page 4, lines 8-28. Applicants assert that one skilled in the art would be able to determine which of those disclosed are symmetric based upon information known in the art and without undue experimentation. Further, Applicants have provided a disclosure of how to make the claimed compositions using a symmetric chain extender,1,4-butanediol, in instant Examples 1, 2 and 4. Applicants contend that it is well within the abilities of one skilled in the art to replicate these examples, without undue experimentation, using one of the different symmetric diamines or diols disclosed and claimed.

Therefore, Applicants submit that the claims are in compliance with 35 U.S.C. §112, first paragraph, and respectfully request the Examiner reconsider and reverse his rejection of Claims 1-11 and 13 under 35 U.S.C. §112, first paragraph, for lack of enablement.

Rejections under 35 U.S.C. §112, first paragraph

Claim 8 is rejected under 35 U.S.C. §112, first paragraph for containing subject matter which was not described in such a way as to enable one skilled in the art to make and/or use the invention. The Examiner contends that the Applicants have failed to provide guidance for producing or obtaining the claimed symmetric ethoxylated bisphenols and primary symmetric mono-, di-, tri-, or tetraalkyl-substituted 4,4'-diaminodiphenylmethanes.

Although Applicants believe it is well within the abilities of one skilled in the art to produce or obtain such compounds, in the interests of expediting prosecution of the instant application, Applicants have removed the symmetric ethoxylated bisphenols and primary symmetric mono-, di-, tri-, or tetraalkyl-substituted 4,4'-diaminodiphenyl-methanes from the instant claims, thus obviating the Examiner's grounds for rejection.

Applicants submit that because of the above-detailed changes, Claim 8 is in compliance with 35 U.S.C. §112, first paragraph, and respectfully request the Examiner reconsider and reverse his rejection thereof under 35 U.S.C. §112, first paragraph.

Rejections under 35 U.S.C. §102(e)

Claims 1-14 are rejected under 35 U.S.C. §102(e), as being anticipated by U.S. Pat. No. 6,166,166 issued to Taylor et al. Applicants respectfully disagree with the Examiner.

In the Advisory Action, mailed August 6, 2003, the Examiner contends that the 37 C.F.R. §1.132 declarations filed with the response under 37 C.F.R. §1.116 are insufficient because he alleges that the claims of the reference encompass the instant invention, and he further alleges that it has not been established that only the

Applicants invented the claimed subject matter. The Examiner also notes that a Terminal Disclaimer was filed in the case on February 21, 2002.

Applicants note that the Terminal Disclaimer was filed to obviate a non-statutory obviousness-type double patenting rejection over only claims 10 and 13 of the '166 patent. Applicants do not agree with the Examiner's statement that the claims of the '166 patent encompass the instantly claimed invention. Further, Applicants object to the Examiner's implication that they somehow acquiesce in such an interpretation by the filing of a terminal disclaimer.

Applicants herewith submit newly executed declarations under 37 C.F.R. §1.132 by the inventors stating unequivocally that they are the only inventors of the relevant portions of the '166 patent which describe the instantly claimed invention.

Therefore, Applicants respectfully request the Examiner reconsider and reverse his rejection of Claims 1-14 under 35 U.S.C. §102(e), as being anticipated by U.S. Pat. No. 6,166,166 issued to Taylor et al.

Conclusion

Applicants have amended Claim 8. Applicants have also added Claims 15-22 and contend that such claim amendments add no new matter and find support in the specification.

Applicants submit that the instant application is in condition for allowance. Accordingly, reconsideration and a Notice of Allowance are respectfully requested for Claims 1-22. If the Examiner is of the opinion that the instant application is in condition for other than allowance, he is requested to contact the Applicants'

Attorney at the telephone number listed below, so that additional changes to the claims may be discussed.

Respectfully submitted,

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